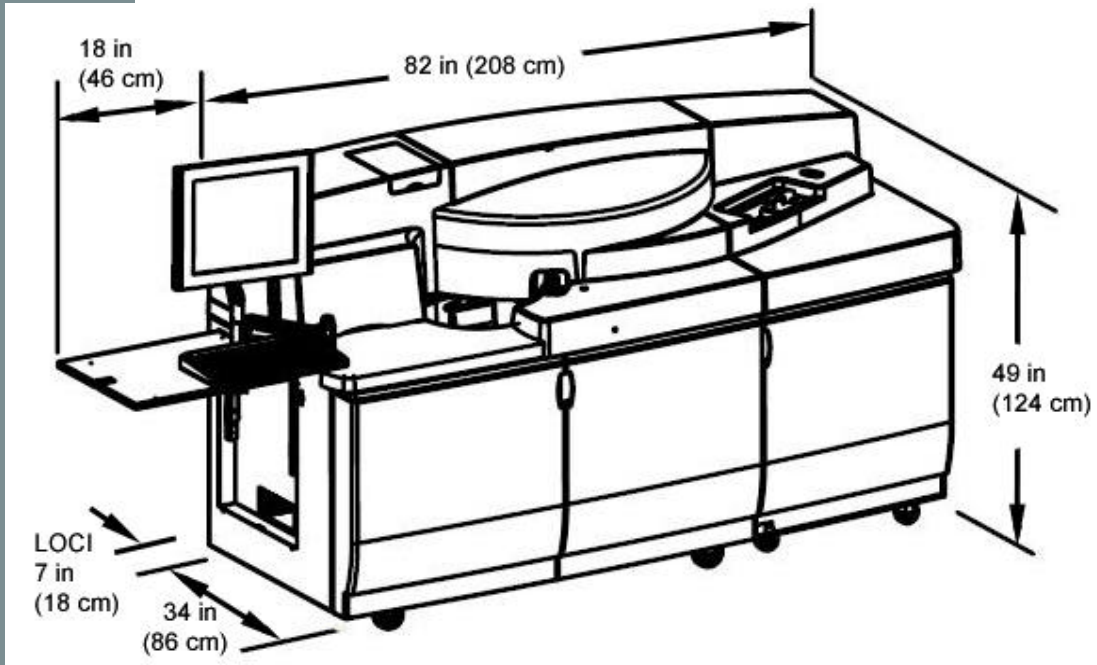
Dimension® EXL™ with LM Instrument Specifications

Effective: January 2009



Instrument Weight and Dimensions

Weight

1095 lb (496 kg)

Dimensions[1]

82 in. wide x 49 in. high (without monitor) x 41 in. deep
(208 cm w x 124 cm h x 86 cm d)

1 Add 18 in. (45 cm) to the length if the printer shelf is used. Add 11 in. (28 cm) to depth if UPS is positioned behind the instrument.

Additional Instrument Clearances (Minimum)

- Monitor overhead clearance—62 in. (157 cm)
- Monitor overhang—2 in. (5 cm)
- Raised instrument lids clearance—66 in. (167 cm)
- Clearance on right side—3 in. (8 cm)
- Ventilation clearance in back—12 in. (30 cm)
- Doorway opening for installation—32 in. (81 cm)

Notes: No leveling required; however, the two front casters should be locked during system operation.

A 360° access is needed for service. Installation and service require at least 36 in. (91 cm) of working space on each side. Access to the back of the instrument requires moving it forward.

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Room Environment

Operating Temperature

Room temperature must be 65–85°F (17–30°C) with a maximum fluctuation of 5°F (2.8°C) per hour. The system requires a maximum of 120 minutes to warm up from a cold start to the incubation temperature.

Relative Humidity

Maintain between 20% and 80%

Average Thermal Output

3753 BTU/hr (1100 W)

RMS: 1540 Btu/hr (450 kwh)

Average Noise Output

<75 dBA at 1 m while operating

Water Requirements

- Deionized water: CLRW; Clinical Laboratory Reagent Water
- Instrument feed water system must maintain stable dO2 content between 5 and 8 ppm
- Consumption 1.1–1.32 gal/hr (4.5–5.0 L/hr) at maximum throughput
- Temperature: < 35°C
- Resistivity: ≥ 10 megohms cm
- Bacterial content: ≤ 10 colony-forming units/mL
- System feed water line must not exceed 12 feet
- System is supplied with water system

Waste Requirements

Liquid Waste Output

1.1–1.32 gal/hr (4.5–5.0 L/hr) at maximum throughput

A 50-ft (15.2-m) tubing is supplied for external waste disposal. Maintenance of the waste tubing from the instrument to the disposal point is the responsibility of the user. The disposal point should be selected in accordance with local hazardous waste guidelines.

Electrical Installation Requirements

Current/Operating Power Requirements

	Nominal Line Voltage vac	Line Voltage range vac	Nominal Line Frequency Hz	Maximum Continuous Current, AMPS	Power Consumption WATTS
EXL™ system	115	103 to 127	47 to 63	~11	1265
	230	207 to 253	47 to 63	~5.5	1265
RMS	115	103 to 127	47 to 63	4	450
	230	207 to 253	47 to 63	3	450

Wiring Options (RMS and instrument)

One of two line wiring options may be chosen to connect the RMS and instrument to line power. These options apply to the USA relative to wire sizing, and apply worldwide relative to circuit isolation requirements.

Option 1

If the Dimension® instrument is plugged into a dedicated 20 amp single receptacle, which is connected to service with 10-gauge wiring, another single receptacle may be parallel wired from the instrument receptacle for the RMS. If this option is used, the service circuit breaker must be 20 amps. This option ensures that both the Dimension® instrument and the RMS module receive from the same power source.

Option 2

The RMS and the instrument each have their own dedicated line wiring and wall line receptacle. The line wiring requirements are specified in this document.

Circuit

The instrument must have a separate, dedicated line with Hot, Neutral, and Isolated Ground in its own conduit. The conduit should start at the distribution panel and be continuous to the receptacle. Three-wire distribution to the receptacle is required for each instrument. The third (green) ground wire should start at the distribution panel and be continuous to the receptacle in accordance with NEC paragraph 250-74, exception 4, unless local codes prohibit. The ground wire should not be tied to grounds from other loads.

WARNING: If Option 2 is chosen, the two separate branch circuits must originate from the same power phase in the distribution panel.

Wire Size (North America only)

10 AWG wire is required to minimize voltage drop between the distribution panel and the receptacle when the instrument operates at full current load.

Either 14 or 12 AWG wiring may be used to connect the RMS to the service distribution panel.

Receptacle

Customer must provide a Hospital Grade receptacle, installed by a qualified electrician before arrival of the instrument. The receptacle must be accessible to the 9-ft (2.7-m) power cord furnished with the instrument. The U.S.A. requires NEMA #5-20R 20 amp straight blade receptacle (Hubbell receptacle No. IG-8310 or equivalent).

Electromagnetic Radiation

Do not locate the instrument within 50 ft (15 m) in any direction of an electromagnetic radiation source such as diathermy apparatus.

Leakage Current

	115 vac/60 Hz	230 vac/50 Hz
Instrument		
Normal Supply Connections	Under 10 µA	Under 100 µA
Ground Disconnected	Under 70 µA	Under 150 µA
Measurement Standard	UL3101-1	EN61010-1
RMS		
Normal Supply Connections	Under 78 µA	Under 58 µA
Ground Disconnected	Under 180 µA	Under 117 µA
Transient Overvoltage (branch circuit)	Installation category II	

This complies with the requirements of CSA C22.2 #1010.1, UL 3101-1 and TUVs certification for EN61010-1 safety standards for laboratory equipment in non-patient-vicinity laboratory equipment.

Phone Line Requirement

A dedicated phone line connected to the Dimension® EXL™ with LM integrated chemistry system is required for installation.

- Dedicated, direct line connected only to the Dimension® EXL™ with LM system (not through a switch-board)
- Full duplex, capable of two-way transmission
- Standard phone connection (not digital)
- RJ11C or RJ11W phone jack

Host Interfacing

A 9-pin female connector is required for hookup to the male connector used for host communications port.

Installation

The Dimension® EXL™ with LM system will be installed by a qualified representative of Siemens Healthcare Diagnostics Inc. The installation will include checkout of all aspects necessary to ensure the equipment is fully operational.

Preventive Maintenance Frequency

Three Siemens service preventive maintenance visits per year for the Dimension® EXL™ with LM system.

Code Compliance

Safety Compliance

The Dimension® EXL™ with LM system (including RMS) has been designed and tested to comply with these safety standards:

CAN/CSA C22.2 No. 61010-1 (2004)
CAN/CSA C22.2 No. 61010-2-081 (2004)
CAN/CSA C22.2 No. 61010-2-101 (2004)
UL 61010.1 (2nd Edition)

under the following environmental conditions [subclause 1.4]:

Temperature	5°C (41°F) to 40°C (104°F)
Humidity	Maximum 80% at 31°C to 50% at 40°C
Altitude	Maximum 2,000 m (6,562 ft)
Main Supply	115±10% vac or 230±10% vac, 50/60Hz
Overvoltage Category	Category II, connected to a branch circuit
Pollution degree	Degree 2, normal indoor laboratory environment. Air contains only non-conducive pollutants with occasional condensation.

Additional *functional* environmental conditions are discussed earlier in this document.

Emission Compliance

The Dimension® EXL™ with LM system should not be used next to any Industrial Scientific and Medical (ISM) equipment that must functionally produce RF energy (e. g., diathermy equipment).

Barcode Scanner

The barcode scanner uses Class I LEDs (light-emitting diodes) and is not hazardous to your eyes.

The barcode scanner on the RMS uses a Class II laser and is hazardous to your eyes.

For additional information or to reach a Siemens representative, please call 1-800-393-9362.

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